Service Manual

MINOLTA

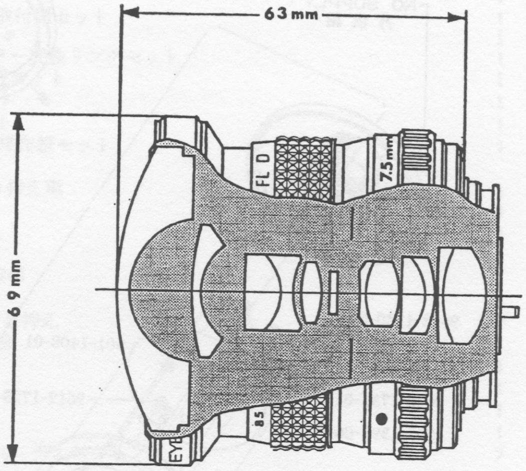
MC-Rokkor Lenses

MC FISH-EYE ROKKOR
7.5mm F4 (501)

MC FISH-EYE ROKKOR-OK
16mm F2.8 (608)

MC W. ROKKOR (611)
17mm F4

MC FISH-EYE ROKKOR
7.5mm F4 (501)



LENS

Lens element : 12 elements 8 groups
Lens type : Retrofocus type
Coating : Achromatic coating
Angle of view : 180°
Lens mount : Minolta mount
Diaphragm : Auto pre-set (Diaphragm compensation on the scale at full aperture with half stop click and meter coupler)
Diaphragm scale : 4, 5.6, 8, 11, 16, 22
Blade : 6 blades

FOCUS

Focusing : Fiexd focusing

SIZE AND WEIGHT

Size : 2-11/16 (Max. diameter) × 2-1/2 in. (H)
Weight : 12-11/16 oz.

SALES DATE

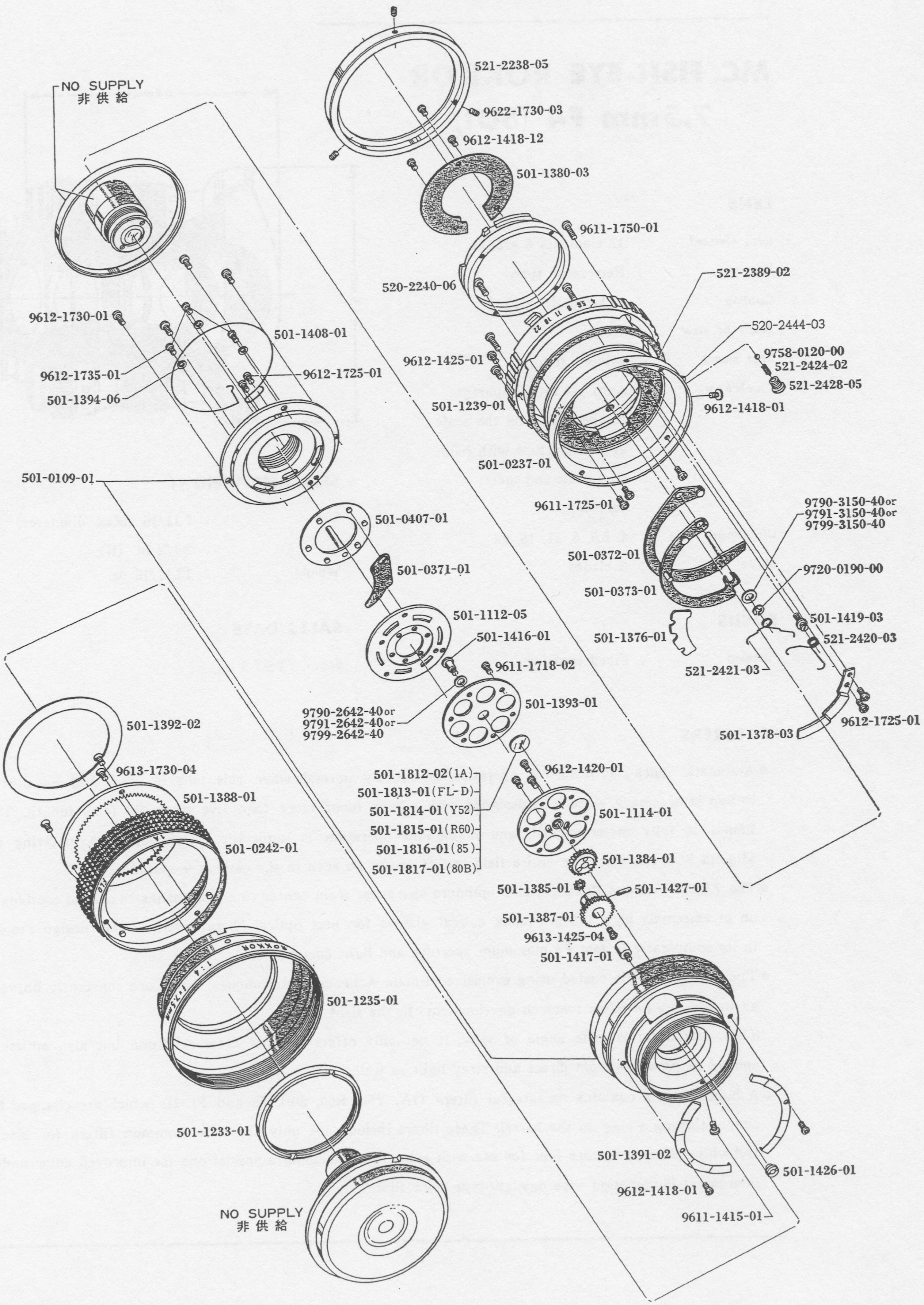
Sep. 1975

FEATURERS

- Automatic quick-return mirror operation is entirely normal when this lens is used, and no mirror lockup is necessary, since it is designed with a back focus more than five times its focal length. The 7.5mm is fully meter-coupled, and diaphragm operation is automatic for full-aperture metering on Minolta SLR cameras. The entire field can of course be seen in the camera viewfinder.
- The 7.5mm Fish-eye Rokkor yields optimum sharpness from center to edges thanks to skillful combination of extremely high and low-index optical glasses for best optical characteristics. This design results in its comparatively fast F4 maximum aperture and light compactness.
- The new fish-eye is coated using exclusive Minolta Achromatic techniques, which are constantly improved to incorporate latest research developments in the field.

  Thus, despite its extreme angle of view, it not only offers superior color rendition but also optimum control of problems from direct and stray light as well.
- A built-in turret contains six integral filters (1A, Y52, R60, 80B, 85 and FL-D) which are changed by simply turning a ring on the barrel. These filters include not only the most common filters for black-and-white but also feature four for use with color film, including a special one for improved color under fluorescent illumination with daylight-type color film.

MC FISH-EYE ROKKOR 7.5mm F4
CODE No. 501


521-2238-03
NO SUPPLY
非供給
9622-1730-03
9612-1418-12
501-1380-03
9611-1750-01
521-2389-02
520-2240-06
520-2444-03
9612-1730-01
501-1408-01
9758-0120-00
521-2424-02
9612-1425-01
521-2428-05
9612-1735-01
9612-1725-01
501-1394-06
501-1239-01
9612-1418-01
501-0237-01
501-0109-01
9611-1725-01
9790-3150-40or
9791-3150-40or
9799-3150-40
501-0407-01
501-0372-01
501-0371-01
9720-0190-00
501-0373-01
501-1112-05
501-1419-03
501-1416-01
501-1376-01
521-2420-03
9611-1718-02
521-2421-03
501-1393-01
9790-2642-40or
9791-2642-40or
9799-2642-40
9612-1725-01
501-1392-02
501-1378-03
9613-1730-04
9612-1420-01
501-1812-02(1A)
501-1813-01(FL-D)
501-1814-01(Y52)
501-1815-01(R60)
501-1816-01(85)
501-1817-01(80B)
501-1388-01
501-1114-01
501-0242-01
501-1384-01
501-1385-01
501-1427-01
501-1387-01
9613-1425-04
501-1417-01
501-1235-01
501-1233-01
501-1391-02
501-1426-01
9612-1418-01
NO SUPPLY
非供給
9611-1415-01

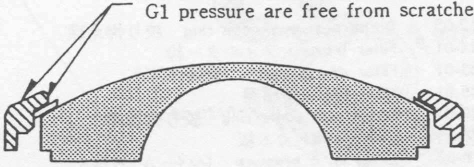
Part No. 部品番号	Part Name 部品名称	Unit 員数
501-0109-01	Inner barrel set 内筒セット	1
501-0237-01	Bayonet mount base ring set 取付環セット	1
520-2444-03	Bayonet point バヨネット標点ポッチ	1
501-0242-01	Filter change ring set フィルター変換リングセット	1
501-0371-01	Diaphragm blade set 絞り羽根セット	1
501-0372-01	Lever — A set レバーAセット	1
501-0373-01	Lever — B set レバーBセット	1
501-0407-01	Diaphragm operation set 絞り操作板セット	1
501-1112-05	Diaphragm operation ring 絞り押え環	1
501-1114-01	Filter frame フィルター枠	1
501-1233-01	Filter ring pressure 鏡頭環押え	1
501-1235-01	Filter ring 鏡頭環	1
501-1239-01	Diaphragm scale ring 絞り指標環	1
501-1376-01	Cam plate カム板	1
501-1378-03	Lever A, B pressure レバーA, B押え	1
501-1380-03	Rear light shield plate 後遮光板	1
501-1384-01	Gear — A ギヤーA	1
501-1385-01	Gear — B ギヤーB	1
501-1387-01	Gear — C ギヤーC	1
501-1388-01	Gear — D ギヤーD	1
501-1391-02	Filter change ring pressure spring 押えスプリング	2
501-1392-02	Washer 返り板	1
501-1393-01	Filter pressure フィルター押え	1
501-1394-06	Washer ワッシャー	3
501-1408-01	Pressure spring 圧着スプリング	1
501-1416-01	Filter change axis フィルター変換軸	1
501-1417-01	Gear axis ギヤー軸	1
501-1419-03	Spring — A hanger スプリングA掛け	1
501-1426-01	Filter set nut フィルター取付ナット	1
501-1427-01	Pin ガタ止めピン	1
501-1812-02	Filter (1A) フィルター(1A)	1
501-1813-01	Filter (FL—D) フィルター(FL—D)	1
501-1814-01	Filter (Y52) フィルター(Y52)	1
501-1815-01	Filter (R60) フィルター(R60)	1
501-1816-01	Filter (85) フィルター(85)	1
501-1817-01	Filter (80B) フィルター(80B)	1
521-2238-05	Diaphragm scale ring pressure 絞り指標環押え	1
520-2240-06	Bayonet mount バヨネット	1
521-2389-02	Diaphragm scale ring washer 絞り指標環ガタ止めワッシャー	0～1
521-2420-03	Spring — A スプリングA	1
521-2421-03	Spring — B スプリングB	1
521-2424-02	Click spring クリックスプリング	1
521-2428-05	Click screw クリックビス	1
9611-1415-01	Phillips type screw 十字穴付なべ頭小ねじ	1
9611-1718-02	Phillips type screw 十字穴付なべ頭小ねじ	6
9611-1725-01	Phillips type screw 十字穴付なべ頭小ねじ	3
9611-1750-01	Phillips type screw 十字穴付なべ頭小ねじ	4
9612-1418-01	Phillips type screw 十字穴付なべ頭小ねじ	3
9612-1418-12	Phillips type screw 十字穴付なべ頭小ねじ	3
9612-1420-01	Phillips type screw 十字穴付なべ頭小ねじ	3
9612-1425-01	Phillips type screw 十字穴付なべ頭小ねじ	2
9612-1725-01	Phillips type screw 十字穴付なべ頭小ねじ	4
9612-1730-01	Phillips type screw 十字穴付なべ頭小ねじ	4
9612-1735-01	Phillips type screw 十字穴付なべ頭小ねじ	3
9613-1425-04	Phillips type screw 十字穴付皿頭小ねじ	1
9613-1730-04	Phillips type screw 十字穴付皿頭小ねじ	3
9622-1730-03	Screw とがり先止めねじ	3
9720-0190-00	Coupling washer 割ワッシャー	1
9790-2642-40	Washer 薄ワッシャー	some 若干
9790-3150-40	Washer 薄ワッシャー	some 若干
9791-2642-40	Washer 薄ワッシャー	some 若干
9791-3150-40	Washer 薄ワッシャー	some 若干
9799-2642-40	Washer 薄ワッシャー	some 若干
9799-3150-40	Washer 薄ワッシャー	some 若干
9758-0120-00	Steel ball スチールボール	1

PRECAUTIONS

〔Lens〕

(1) Take good care not to peel off the coating on the beveled edge of the G1 pressure when cleaning the front lens. (An exfoliated flaw of the coating on the beveled edge may cause a ghost in and around the picture in the backlight.) See Fig. 1

Fig. 1



Be sure thät the Front lens,
G1 pressure are free from scratches or stains.

(2) Be sure not to scratch the front lens.

〔Filter〕

(1) Be sure to fit the filter to the carved mark.

(2) Engage the filter frame with the gear to position the filter to the center.

(3) Fasten the 3 clamp screws (9612-1420-01) for the filter keep plate (1393) lightly and lock it with the Shellac.

Note: When the filter is fastened too tightly, the filter is distorted so that its capacity may be deteriorated.

〔Flange Back〕

(1) In relation to said lens, the adjustment of the flange back is unnecessary for the following reasons. Check the flange back in accordance with the method described in (2).

① The lens within a focal depth ranging from 0.5m～∞ requires no focusing operation, and has no helicoid.

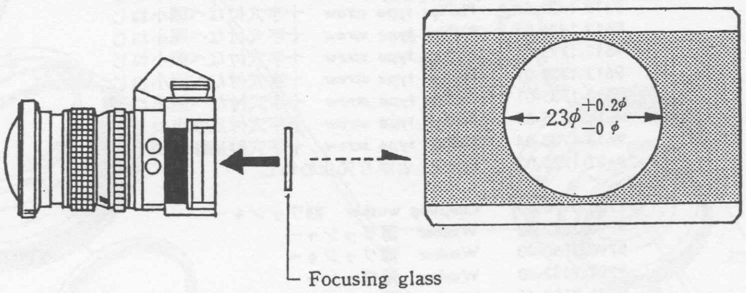
② The components with accurate dimensions ensure the correct flange back after disassembling and assembling the camera.

(2) How to Check.

① Since the very small image on chart looks unclear in measuring the flange back with a collimator, check the point mentioned in ② at the same time. (Measured values of flange back.→∞ : 43.51～43.54mm, 1.2m : 43.56～43.59mm)

② Mount the lens (501) to the body and place the focusing screen on the rail face to keep the circle image $\left(23\phi\ {}^{+0.2}_{-\ 0}\right)$ in the picture on the focusing glass. See Fig. 2

Fig. 2



〔Minimum Aperture Diameter〕

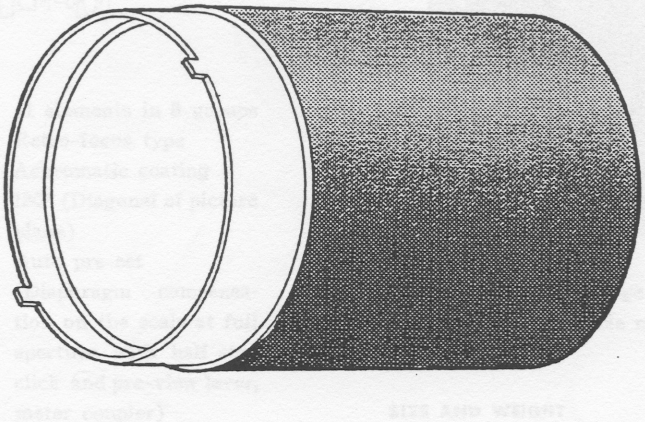
- 1.19φ in the radius of inscribed circle at F22.

Special Tool

Tool No. 501-1101-75 (Common for No. 608 / 608 と共用)

Front lens group spanner

前玉枠回螺器

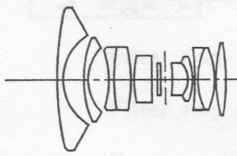


Note: The special tool for No. 608 is inapplicable to 501.

608 専用治工具は 501 用として使用出来ない。

MC FISH-EYE ROKKOR-OK
16mm F2.8 (608)

LENS



Lens element : 11 elements in 8 groups
Lens type : Retro-focus type
Coating : Achromatic coating
Angle of view : 180° (Diagonal of picture plane)
Diaphragm : Auto pre-set (Diaphragm compensation on the scale at full aperture with half stop click and pre-view lever, meter coupler)
Diaphragm scale : 2.8 4 5.6 8 11 16
Diaphragm blades : 6 pieces

FOCUS

Focusing method : Direct helicoid focusing
Minimum focusing distance : 0.3m (1.0 ft)
Distance scale :

m	0.3	0.4	0.5	0.7	1	2	∞
ft	1	1.25	1.5	2	3	6	

OTHERS

Depth of field scale
Infrared pointer : (R) mark

ROKKOR-OK
1 : 2.8 f=16mm
1A
ft
m

Signal mark : Change signal mark (Red circle mark)

SIZE AND WEIGHT

Size : 73mm 2-7/8″ (Max diameter) ×63.5mm 2-1/2″ (H)
Weight : 445g 15.7 oz.
Filter : Built-in four filters (1A, Y48, O56, 80B) Changing by turret
Lens shade size : Built in lens shade

SALES DATE

1969. 25. November

FEATURES

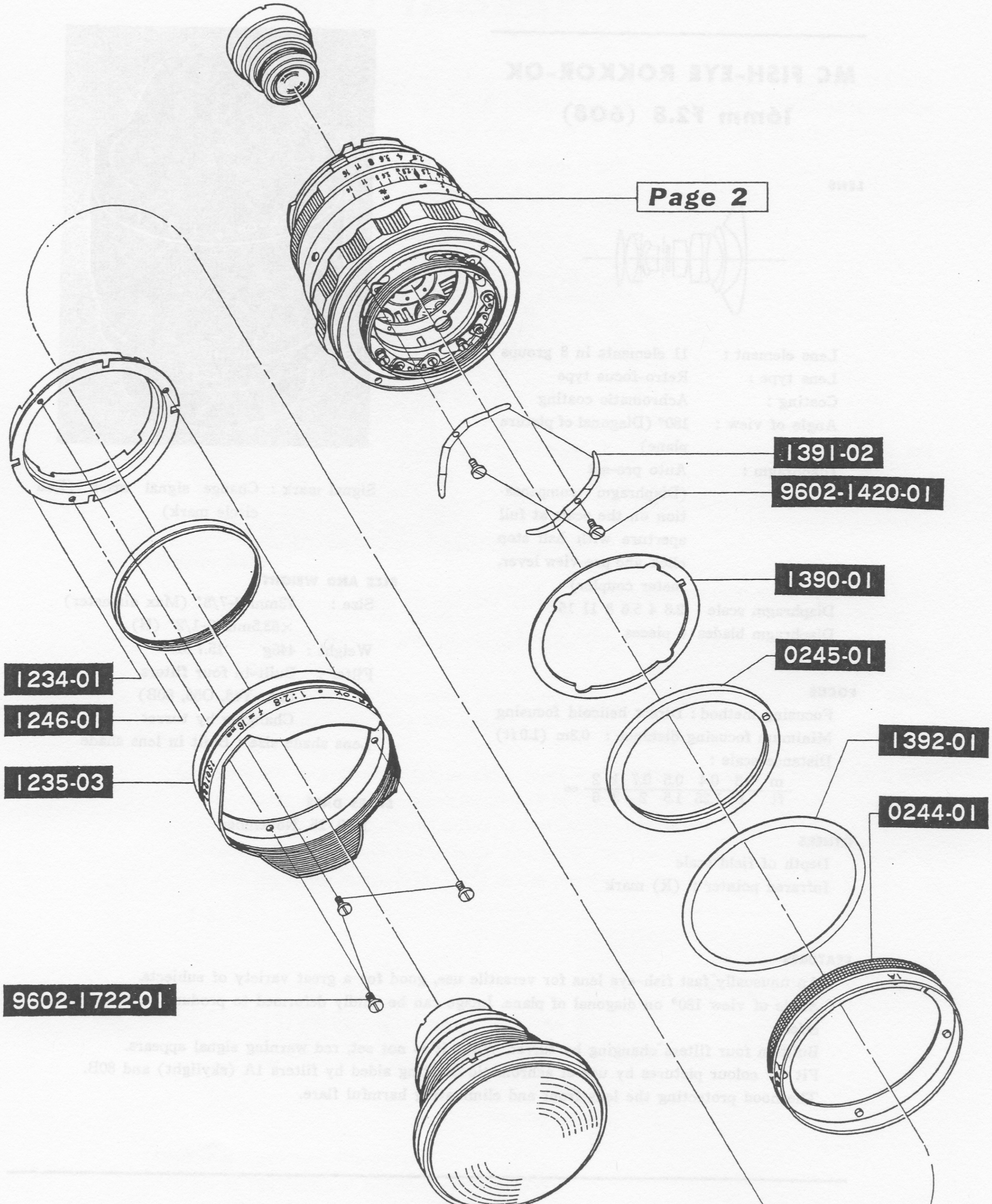
An unusually-fast fish-eye lens for versatile use, good for a great variety of subjects.

Angle of view 180° on diagonal of plane. Image can be wildly deformed to produce an extraordinary effect.

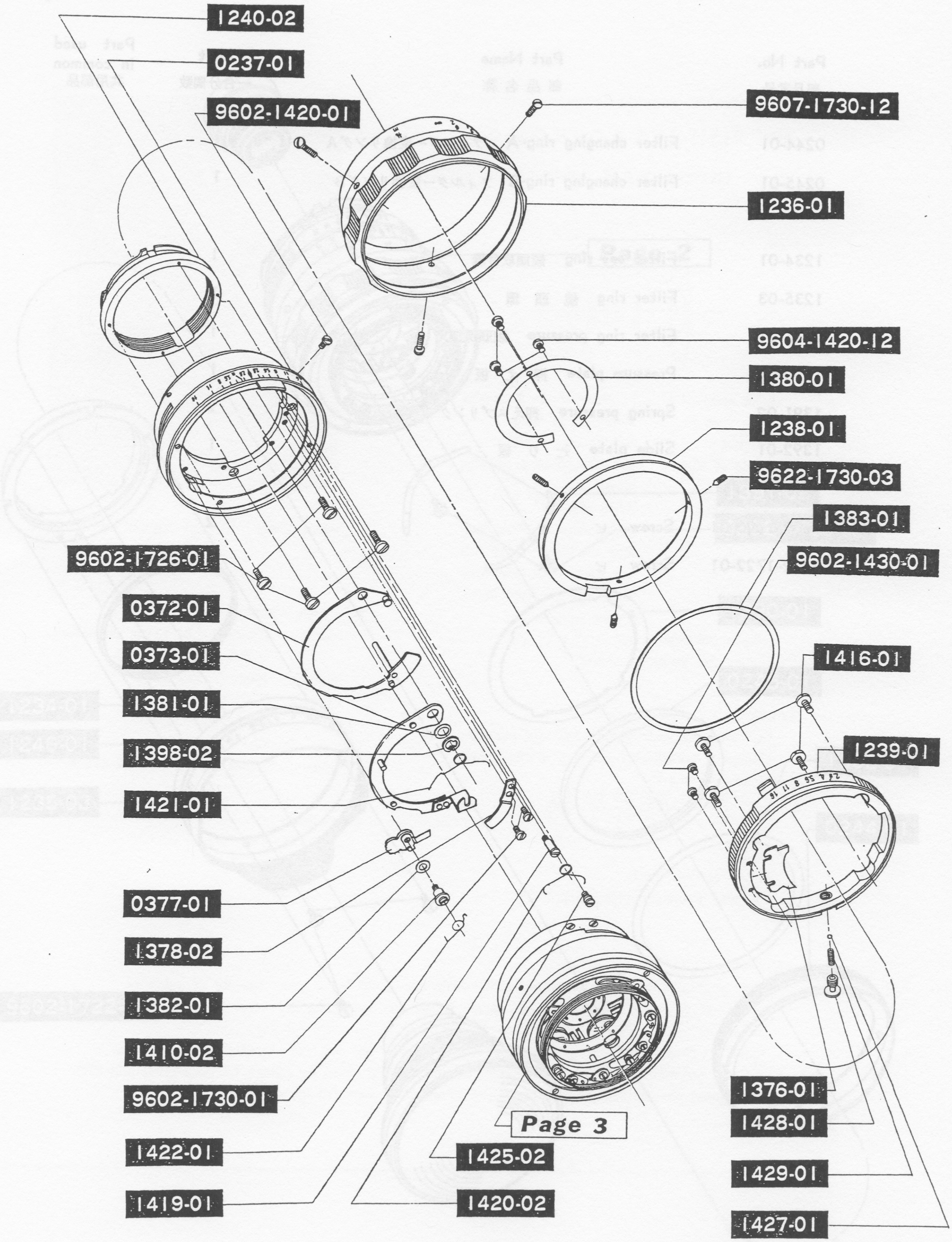
Built-in four filters-changing by turret. When it is not set, red warning signal appears.

Fit for colour pictures by use of achromatic coasting aided by filters 1A (skylight) and 80B.

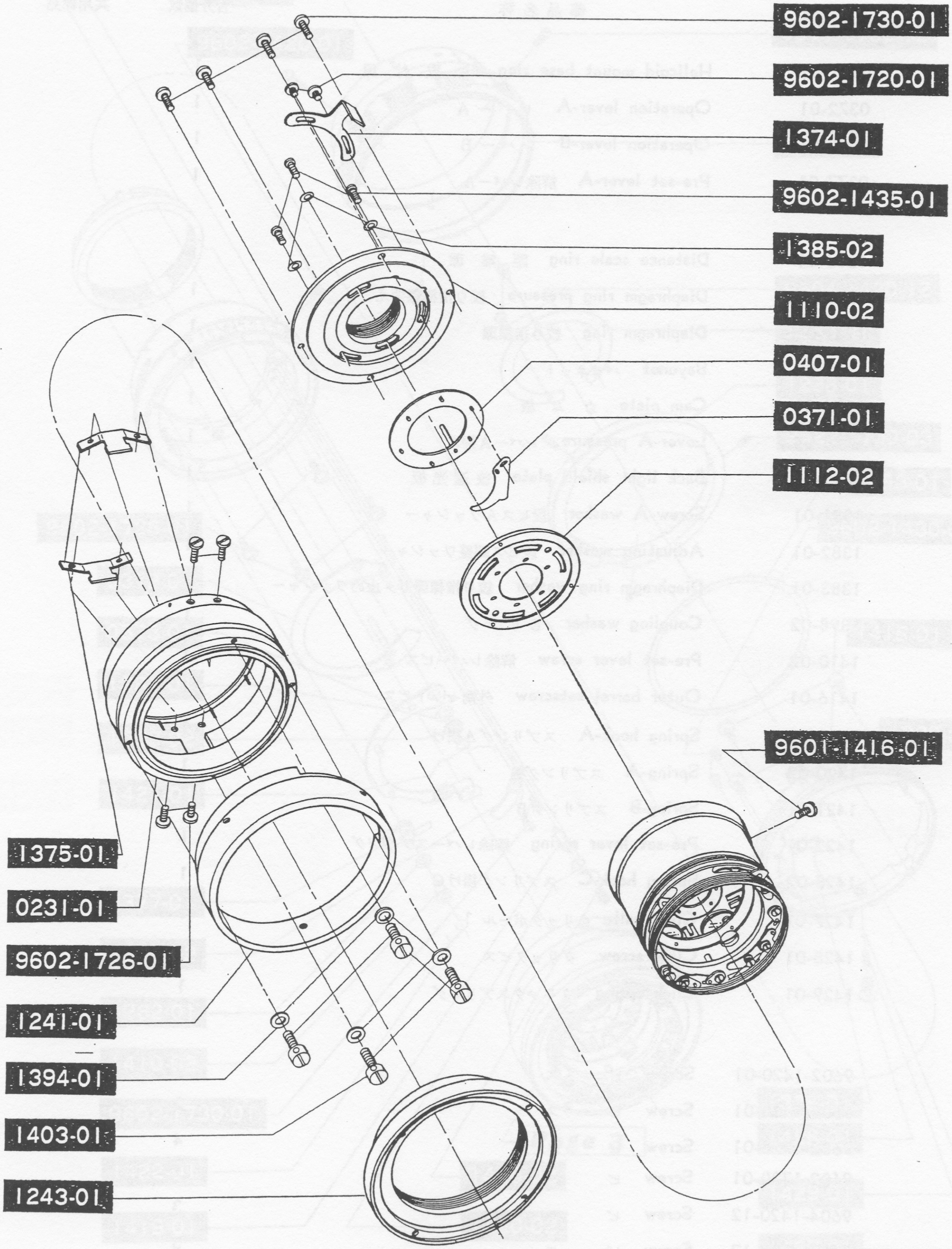
The hood protecting the lens front and eliminating harmful flare.


Page 2
1391-02
9602-1420-01
1390-01
0245-01
1234-01
1246-01
1392-01
1235-03
0244-01
9602-1722-01

Part No. 部品番号	Part Name 部品名称	Unit 一台分個数	Part used in common 共用部品
0244-01	Filter changing ring-A フィルター変換リングA	1	
0245-01	Filter changing ring-B フィルター変換リングB	1	
1234-01	Filter set ring 鏡頭取付環	1	
1235-03	Filter ring 鏡頭環	1	
1246-01	Filter ring pressure 鏡頭環押え	1	
1390-01	Pressure plate 押え板	1	
1391-02	Spring pressure 押えスプリング	2	
1392-01	Slide plate 辷り板	1	
9602-1420-01	Screw ビス	2	
9602-1722-01	Screw ビス	3	


1240-02
0237-01
9602-1420-01
9607-1730-12
1236-01
9604-1420-12
1380-01
1238-01
9622-1730-03
1383-01
9602-1430-01
9602-1726-01
0372-01
0373-01
1381-01
1398-02
1421-01
1416-01
1239-01
0377-01
1378-02
1382-01
1410-02
9602-1730-01
1422-01
1419-01
Page 3
1425-02
1420-02
1376-01
1428-01
1429-01
1427-01

Part No. 部品番号	Part Name 部品名称	Unit 一台分個数	Part used in common 共用部品
0237-01	Helicoid mount base ring set 取付環	1	
0372-01	Operation lever-A レバーA	1	
0373-01	Operation lever-B レバーB	1	
0377-01	Pre-set lever-A 解除レバーA	1	
1236-01	Distance scale ring 距離環	1	
1238-01	Diaphragm ring pressure 絞り指標環押え	1	
1239-01	Diaphragm ring 絞り指標環	1	
1240-02	Bayonet バヨネット	1	
1376-01	Cam plate カム板	1	
1378-02	Lever-A pressure レバーA押え	1	
1380-01	Back light shield plate 後遮光板	1	
1381-01	Screw-A washer 段ビスAワッシャー	1	
1382-01	Adjusting washer 段ビス調整ワッシャー	1	
1383-01	Diaphragm ring washer 絞り指標環ガタ止めワッシャー	1	
1398-02	Coupling washer Eリング	1	
1410-02	Pre-set lever screw 解除レバービス	1	
1416-01	Outer barrel setscrew 外筒セットビス	4	
1419-01	Spring hook-A スプリングA掛け	1	
1420-02	Spring-A スプリングA	1	
1421-01	Spring-B スプリングB	1	
1422-01	Pre-set lever spring 解除レバースプリング	1	
1425-02	Spring hook-C スプリング掛けC	1	
1427-01	Click ball クリックボール	1	
1428-01	Click screw クリックビス	1	
1429-01	Click spring クリックスプリング	1	
9602-1420-01	Screw ビス	1	
9602-1430-01	Screw ビス	2	
9602-1726-01	Screw ビス	4	
9602-1730-01	Screw ビス	2	
9604-1420-12	Screw ビス	3	
9607-1730-12	Screw ビス	3	
9622-1730-03	Screw ビス	3	


9602-1730-01
9602-1720-01
1374-01
9602-1435-01
1385-02
1110-02
0407-01
0371-01
1112-02
9601-1416-01
1375-01
0231-01
9602-1726-01
1241-01
1394-01
1403-01
1243-01

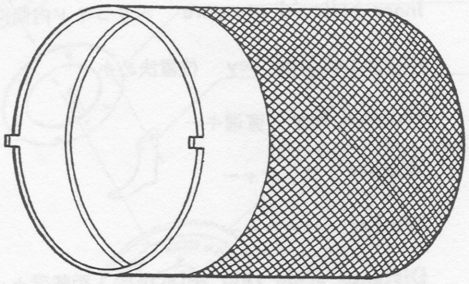
Part No. 部品番号	Part Name 部品名称	Unit 一台分個数	Part used in common 共用部品
0231-01	Helicoid set ヘリコイドセット	1	
0371-01	Diaphragm blade set 絞り羽根	6	
0407-01	Diaphragm operation ring set 絞り操作板	1	
1110-02	Inner barrel-B 内筒 B	1	
1112-02	Stationary bearing ring 絞り押え環	1	
1241-01	Distance scale ring stopper 距離ストッパー環	1	
1243-01	Inner helicoid pressure ヘリコイド内筒押え	1	
1374-01	Right position key 位置決めキー	1	
1375-01	Helicoid key 直進キー	2	
1385-02	Washer ワッシャー	3	
1394-01	Washer ワッシャー	4	
1403-01	Distance scale ring setscrew 距離環セットビス	4	
9601-1416-01	Screw ビス	1	
9602-1435-01	Screw ビス	3	
9602-1720-01	Screw ビス	2	
9602-1726-01	Screw ビス	4	
9602-1730-01	Screw ビス	4	

SPECIAL TOOL

(専用治工具)

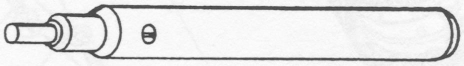
No. 608-1101-78

Used for removing front Lens
前玉枠締付け回ら器



No. 608-1403-77

Used for removing scale ring
距離環セットビス締付け回ら器



DISASSEMBLY

分　解　篇

How to Disassembly

A. Filter changing place 2
B. Holder Ring 4
C. Inner Barrel 6
D. Helicoid 6

分　解　篇

A. フィルター変換部 2
B. 取付環 4
C. 内筒 6
D. ヘリコイド 6

A. Disassembly of Filter Changing Place

1. Remove Front lens group by using Special tool. (608-1101-78)

   Caution : In time of disassemble of the Lens group, special attention must be taken for not spoil the lens and its safe-keeping.
2. Remove three pieces of 9602-1722-01 then take off 1235.
3. Remove 1246 by using Universal compass.
4. Then remove 1234, 0244, 1392, 0245 and 1390.
5. Remove two pieces of 9602-1420-01 then take off two 1391.
6. Remove the Rear lens group by using Universal compass.

   Caution : Special attention must be taken for not spoil the Lens and its safe-keeping.

* * *

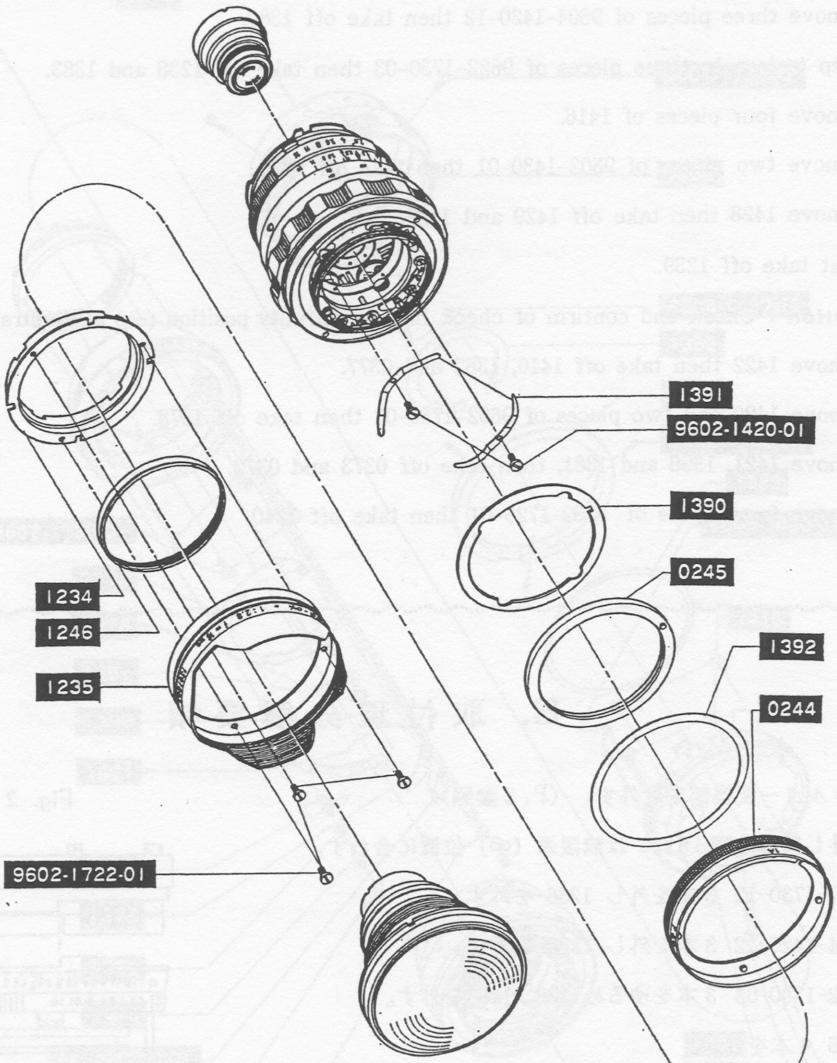
A. フィルター変換部取外し要領

1. 専用治工具（608-1101-78）を用いて前玉群を外す。

   注意 ： レンズ群取外し後キズ，ゴミをさけて保管の事。
2. 9602-1722-01 3本を外し 1235 を外す。
3. 万能回ら器を用いて 1246 を外す。
4. 1234，0244，1392，0245，1390 を外す。
5. 9602-1420-01 2本を外し 1391 2個を外す。
6. 万能回ら器を用いて後玉群を外す。

   注意 ： レンズ群取外し後キズ，ゴミをさけて保管の事。

Fig. 1


9602-1420-01
9602-1722-01

B. Disassembly of Holder Ring

1. Remove the filter changing place. (See Page 2)

   Check Point Before Removed : Keep infinity position (∞) for 1236.
2. Remove three pieces of 9607-1730-12 then take off 1236.
3. Remove three pieces of 9604-1420-12 then take off 1380.
4. Keep to loosely three pieces of 9622-1730-03 then take off 1238 and 1383.
5. Remove four pieces of 1416.
6. Remove two pieces of 9602-1430-01 then take off 1376.
7. Remove 1428 then take off 1429 and 1427.

   Next take off 1239.

   Caution : Check and confirm of check line for infinity position (∞) as illustrated in the Fig.2
8. Remove 1422 then take off 1410, 1382 and 0377.
9. Remove 1420 and two pieces of 9602-1730-01 then take off 1378.
10. Remove 1421, 1398 and 1381, then take off 0373 and 0372.
11. Remove four pieces of 9602-1726-01 then take off 1240.

* * *

B. 取付環分解要領

1. フィルター変換部を取外す。（P. 2参照）

   取外し前の確認：1236 は無限遠（∞）位置に合わす。
2. 9607-1730-12 3本を外し 1236 を外す。
3. 9604-1420-12 3本を外し 1380 を外す。
4. 9622-1730-03 3本をゆるめ1238，1383を外す。
5. 1416 4本を外す。
6. 9602-1430-01 2本を外し 1376 を取外す。
7. 1428 を外し 1429，1427 を外す，次に 1239 を取外す。

   注意：Fig. 2 の様　無限遠（∞）位置に当るケガキ線を確認しておく。
8. 1422 を外し 1410，1382，0377 を外す。
9. 1420，9602-1730-01 2本を外し 1378 を外す。
10. 1421，1398，1381，を外し 0373，0372 を外す。
11. 9602-1726-01 4本を外し 1240 を外す。

Fig. 2

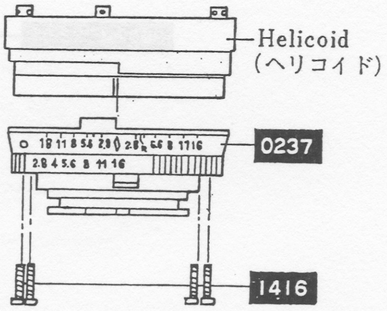
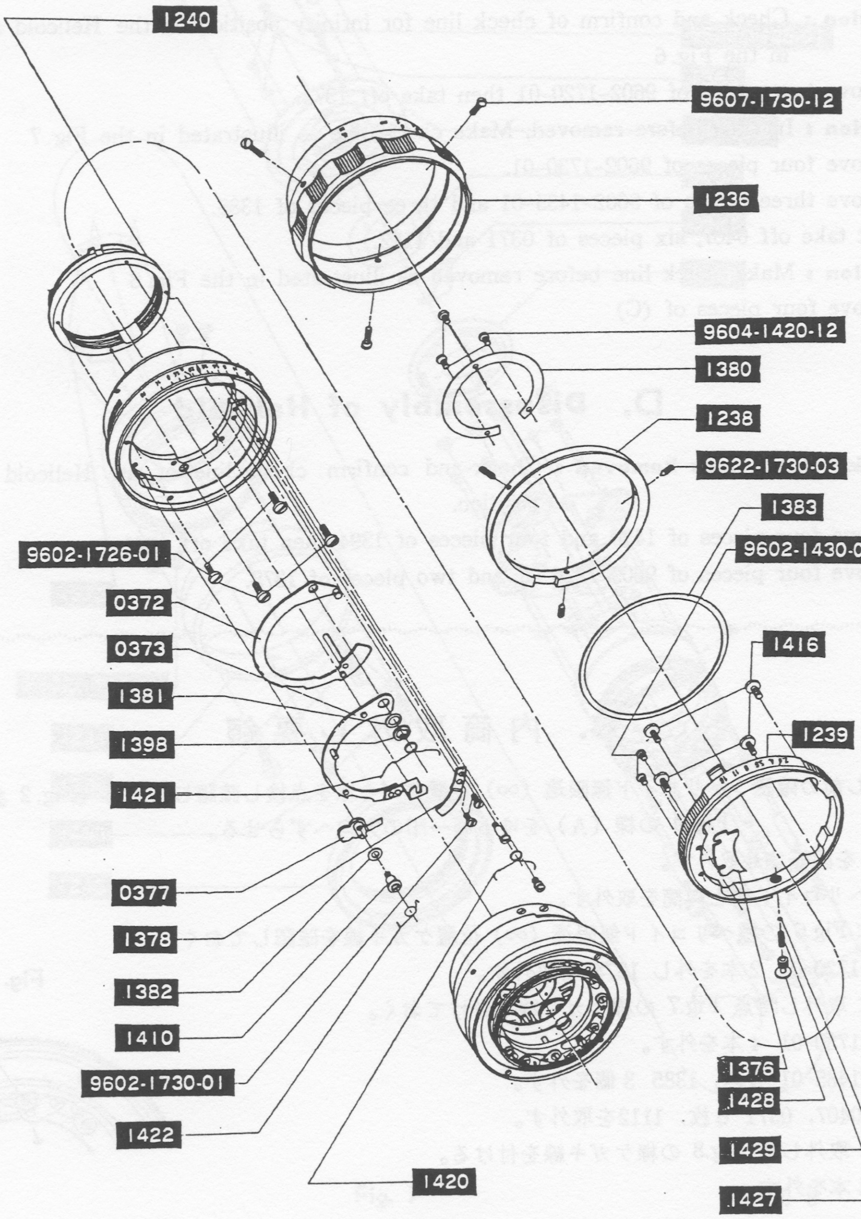


Fig. 3


9607-1730-12
9604-1420-12
9622-1730-03
9602-1430-01
9602-1726-01
9602-1730-01

C. Disassembly of Inner Barrel

Check point Before Removed : Check and confirm of check line for infinity position of the Helicoid as illustrated in the Fig. 2 Attention (A) to loose then be moved for arrow line as illustrated in the Fig. 4

1. Remove by turning 1243, Next take out the Helicoid group and Inner barrel.
   Caution : Check and confirm of check line for infinity position of the Helicoid as illustrated in the Fig. 6
2. Remove two pieces of 9602-1720-01 then take off 1374.
   Caution : In time before removed, Make check line as illustrated in the Fig. 7
3. Remove four pieces of 9602-1730-01.
4. Remove three pieces of 9602-1435-01 and three pieces of 1385.
   Next take off 0407, six pieces of 0371 and 1112.
   Caution : Make check line before removed as illustrated in the Fig. 8
5. Remove four pieces of (C)

D. Disassembly of Helicoid

Check Point Before Removed : Check and confirm check line of the Helicoid for infinity position.

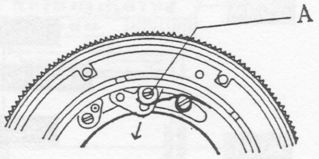
1. Remove four pieces of 1430 and four pieces of 1394 then take off 1241.
2. Remove four pieces of 9602-1726-01 and two pieces of 1375.

C. 内筒取外し要領

取外し前の確認：ヘリコイド無限遠（∞）位置ケガキ線を点検し確認しておく（Fig. 2 参照）
Fig. 4 の様（A）をゆるめ→印の方向へずらせる。

1. 1243 を回転させ取外す。
   次にヘリコイド部と内筒を取外す。
   注意：Fig.6 の様ヘリコイド無限遠（∞）位置ケガキ線を確認しておく。
2. 9602-1720-01 2本を外し 1374 を取外す。
   注意：取外し時点 Fig.7 の様ケガキ線を付けておく。
3. 9602-1730-01 4本を外す。
4. 9602-1435-01 3本，1385 3個を外す。
   次に 0407，0371 6枚，1112を取外す。
   注意：取外し前 Fig.8 の様ケガキ線を付ける。
5. （C）4本を外す。

Fig. 4



D. ヘリコイド分解要領

取外し前の確認：ヘリコイド無限遠（∞）位置ケガキ線を点検しておく。

1. 1403 4本，1394 4個，を外し1241を取外す。
2. 9602-1726-01 4本を外し 1375 2個取外す。

Fig. 5

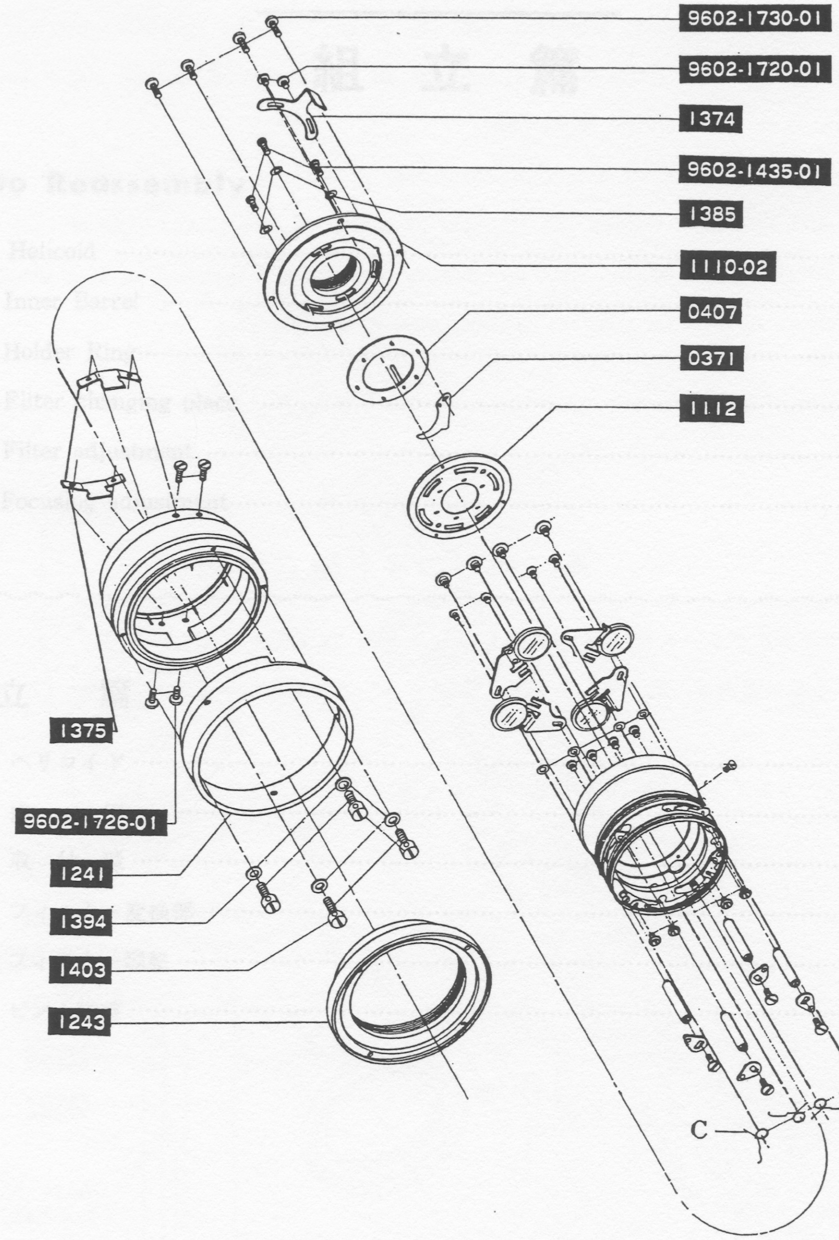

9602-1730-01
9602-1720-01
1374
9602-1435-01
1385
1110-02
0407
0371
1112
1375
9602-1726-01
1241
1394
1403
1243
C

Fig. 6

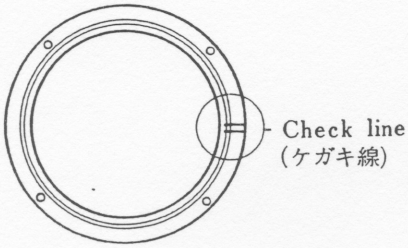

Check line
(ケガキ線)

Fig. 7

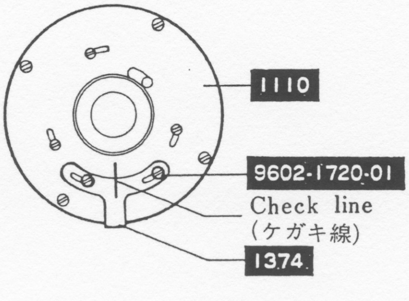
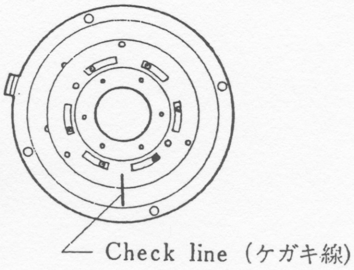

1110
9602-1720-01
Check line
(ケガキ線)
1374

Fig. 8


Check line (ケガキ線)

REASSEMBLY

組立篇

How to Reassembly

A. Helicoid 9
B. Inner Barrel 11
C. Holder Ring 13
D. Filter changing place 15
E. Filter adjustment 17
F. Focusing adjustment 19

組 立 篇

A. ヘリコイド 9
B. 内　　筒 11
C. 取 付 環 13
D. フィルター変換部 15
E. フィルター調整 17
F. ピント調整 19

A. Assembly of Helicoid

1. Apply a grease (Special attention "No. 006 grease") to the Helicoid inner and Outer barrel. Make height of the Helicoid at 21.4mm in all as illustrated in the Fig. 9 then check and confirm their the Helicoid movement.
2. Apply a grease (Special attention "Multinoc grease") to the Key-grooves of the Helicoid inner and 1375 then tighten the Helicoid by means of four pieces of 9602-1726-01.
3. 1241 insert to the Helicoid then temporality tighten it by means of four pieces of 1394 and four pieces of 1403 for position as illustrated in the Fig.10

A. ヘリコイド組立要領

1. ヘリコイドにグリースNo.006を使用し Fig.9 の様 21.4mm に調整する。
2. 1375 2個に直進キー用〝マルチノック グリース〞を使用しヘリコイドに 9602-1726-01 4本で取付ける。
3. 1241をヘリコイドに Fig.10 の位置で1394 4個，1403 4本で仮締めする。

Fig. 9

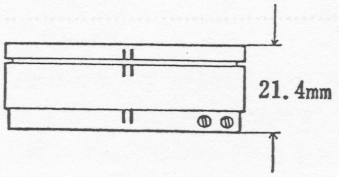


Fig.10

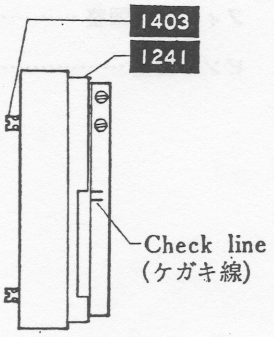
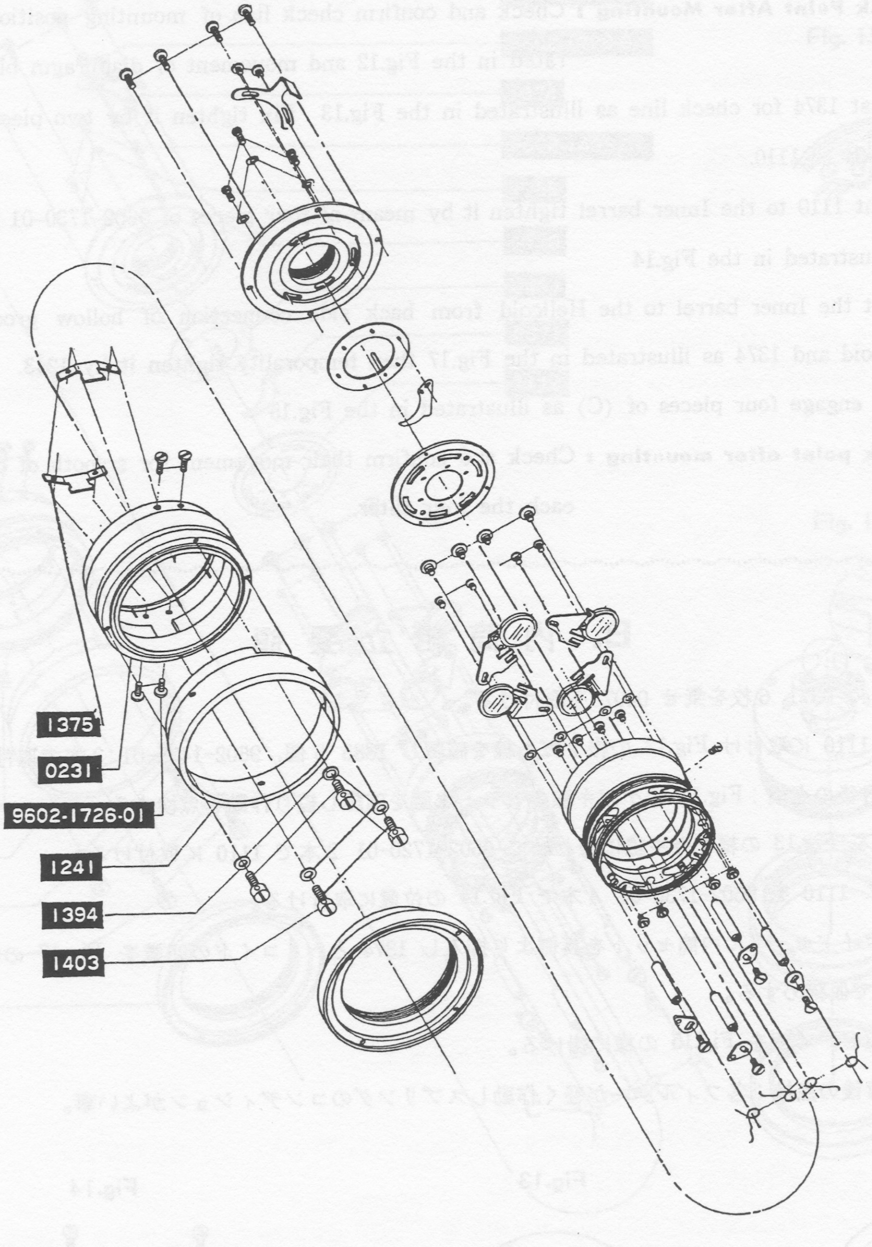


Fig. 11


1375
0231
9602-1726-01
1241
1394
1403

B. Assembly of Inner Barrel

1. Put on six pieces of 0371 to 1112 then their mount to 1110, check and confirm check line as illustrated in the Fig. 12 Fix tighten it by means of three pieces of 1385 and three pieces of 1435.

   Check Point After Mounting : Check and confirm check line of mounting position as illustrated in the Fig.12 and movement of diaphragm blade.
2. Adjust 1374 for check line as illustrated in the Fig.13 Fix tighten it by two pieces of 9602-1720-01 to 1110.
3. Mount 1110 to the Inner barrel tighten it by means of four pieces of 9602-1730-01 for position as illustrated in the Fig.14
4. Insert the Inner barrel to the Helicoid from back side connection of hollow groove of the Helicoid and 1374 as illustrated in the Fig.17 then temporality tighten it by 1243.
5. Next engage four pieces of (C) as illustrated in the Fig.15

   Check point after mounting : Check and confirm their movement for smooth of condition of each the four filter.

B. 内筒組立要領

1. 1112 に 0371 6枚を乗せ 0407 を取付ける。

   次に 1110 に取付け Fig.12 の様ケガキ線を確認し 1385 3個，9602-1435-01 3本で取付ける。

   取付け後の点検：Fig.12 のケガキ線のセット位置を確認し絞り作動を点検する。
2. 1374 を Fig.13 の様ケガキ線に合わせて 9602-1720-01 2本で 1110 に取付ける。
3. 内筒に 1110 を 9602-1730-01 4本で Fig.14 の位置に取付ける。
4. ヘリコイドセットに内筒セットを裏側より挿入し 1374 とヘリコイドの凹溝を Fig.17 の様合致させ，1243 で仮締めする。
5. 次に（C） 4個を Fig.15 の様に掛ける。

   取付け後の点検：各フィルターが軽く作動しスプリングのコンディションがよい事。

Fig.12

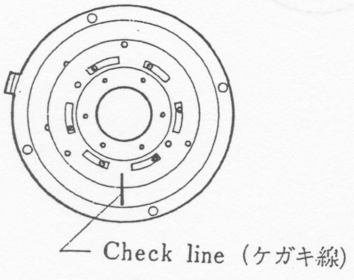


Fig.13

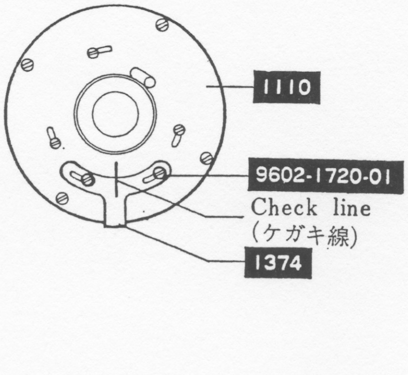


Fig.14

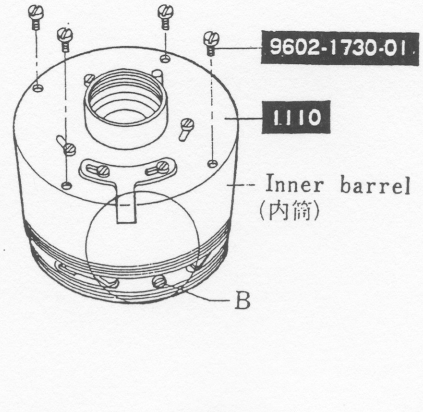


Fig. 16

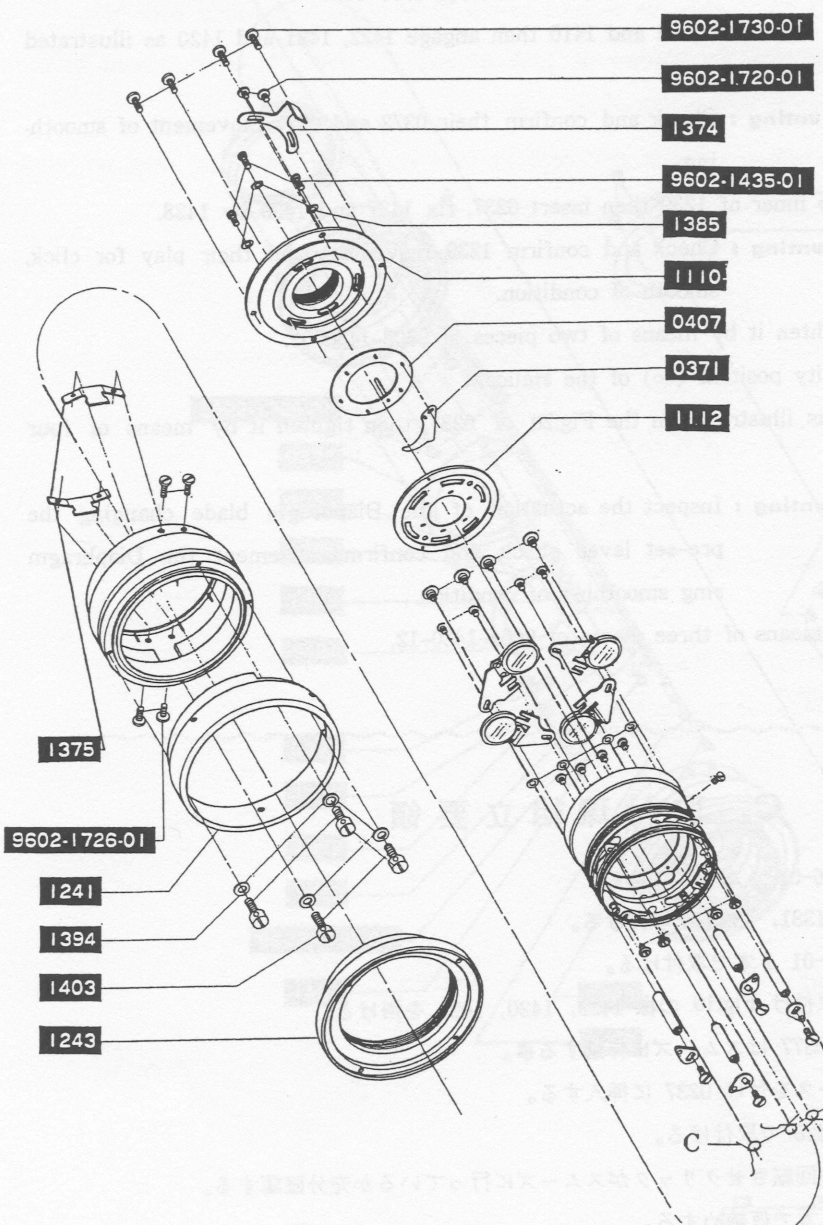

9602-1730-01
9602-1720-01
1374
9602-1435-01
1385
1110
0407
0371
1112
1375
9602-1726-01
1241
1394
1403
1243
C

Fig. 15

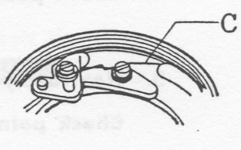
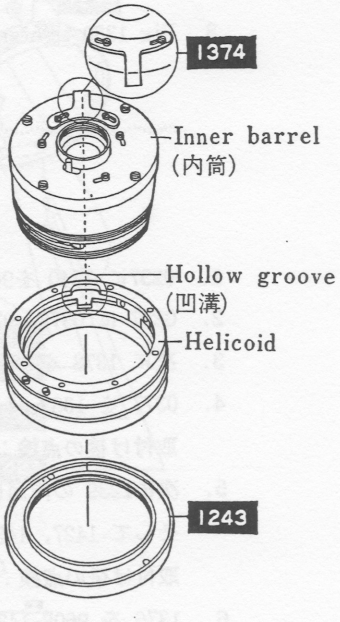


Fig. 17


1374
Inner barrel
(内筒)
Hollow groove
(凹溝)
Helicoid
1243

C. Assembly of Holder Ring

1. Fix 1240 to 0237 then tighten it by means of four pieces of 9602-1726-01.
2. Fix 0372, 0373 to 0237 then tighten it by means of 1381 and 1398.
3. Next fix 1378 tighten it by means of two pieces of 9602-1730-01.
4. Fix 0377 tighten it by means of 1382 and 1410 then angage 1422, 1421 and 1420 as illustrated in the Fig.19

   Check point after mounting : Check and confirm their 0372 and 0377 movement of smoothing.
5. Next apply a grease to inner of 1239 then insert 0237, fix 1427 and 1429 by 1428.

   Check point after mounting : Check and confirm 1239 movement and their play for click, smooth of condition.
6. Fix 1376 temporaly tighten it by means of two pieces of 9602-1430-01.
7. Check line of the infinity position (∞) of the Helicoid.

   Connect with position as illustrated in the Fig.20 of 0237, then tighten it by means of four pieces of 1416.

   Check point after mounting : Inspect the actuation of the Diaphragm blade changing the pre-set lever check and confirm movement the Diaphragm ring smoothing of condition.
8. Fix 1380 tighten it by means of three pieces of 9604-1420-12.

C. 取付環組立要領

1. 0237に 1240 を9602-1726-01 4本で取付ける。
2. 0237 に 0372，0373 を 1381，1398 で取付ける。
3. 次に 1378 を 9602-1730-01 2本で取付ける。
4. 0377 を 1382，1410 で取付け Fig.19 の様 1422，1420，1421 を掛ける。

   取付け後の点検：0372，0377 はスムーズに作動する事。
5. 次に1239 の内面にグリースを付け 0237 に挿入する。

   そして 1427，1429 を 1428 で取付ける。

   取付け後の点検：1239 を回転させクリックがスムーズに行っているか充分確認する。
6. 1376 を 9602-1430-01 2本で仮締めする。
7. ヘリコイドセット無限遠（∞）のケガキ線位置と 0237 をFig.20の位置に合致させ 1416 4本で取付ける。

   取付け後の点検：プリセットを作動させ絞り羽根の動きがスムーズに作動する事。

   絞り指標環を作動させ絞り羽根が変化する事。
8. 1380 を 9604-1420-12 3本で取付ける。

Fig. 18

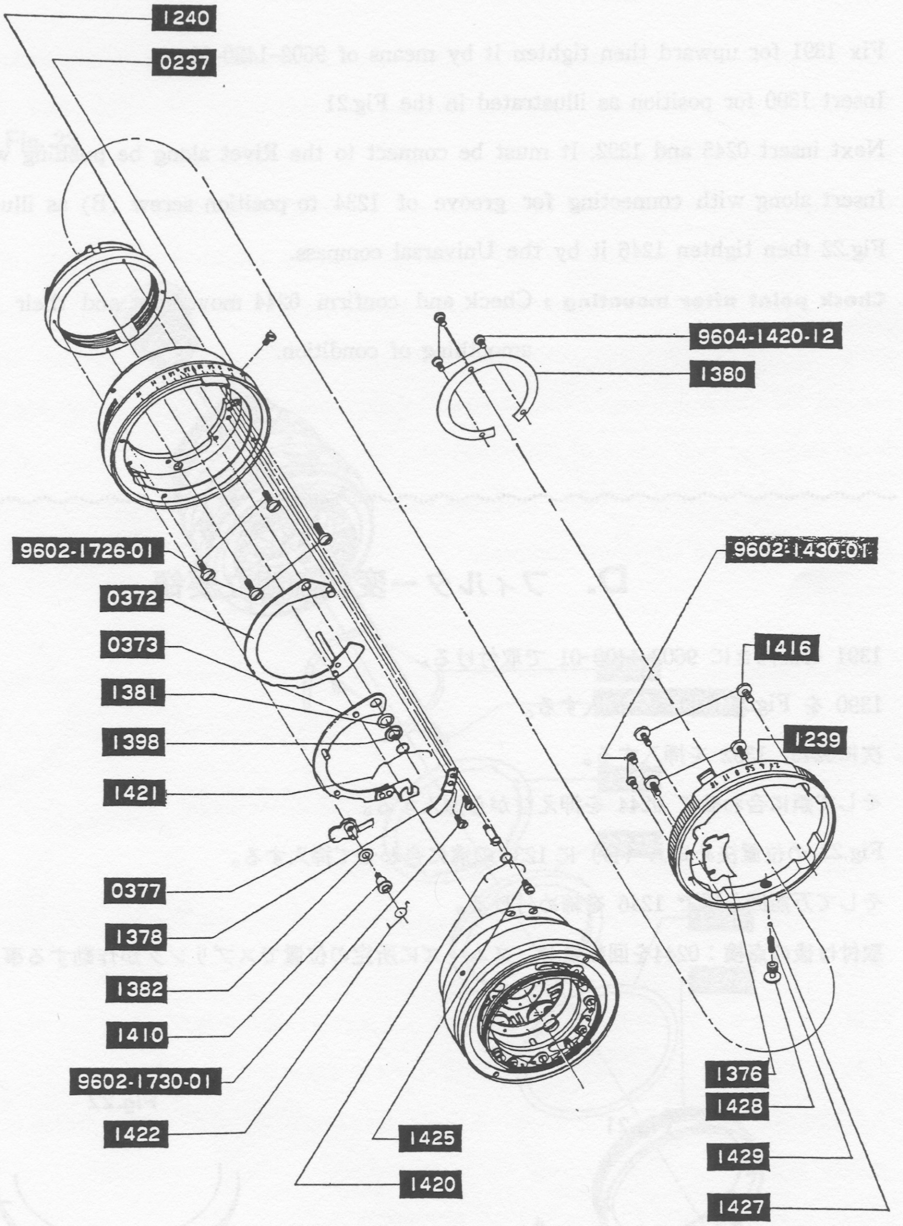

1240
0237
9604-1420-12
1380
9602-1726-01
0372
0373
1381
1398
1421
0377
1378
1382
1410
9602-1730-01
1422
9602-1430-01
1416
1239
1376
1428
1429
1427
1425
1420

Fig. 19

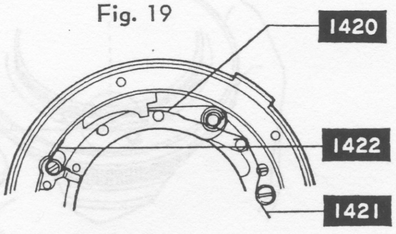
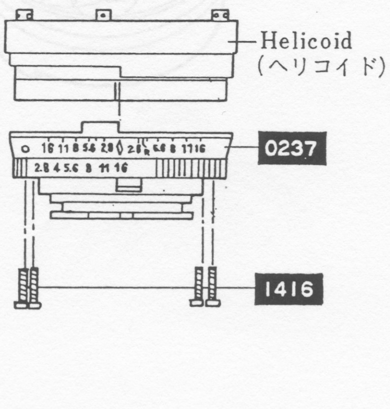

1420
1422
1421

Fig. 20


Helicoid
(ヘリコイド)
0237
1416

D. Assembly of Filter Changing Place

1. Fix 1391 for upward then tighten it by means of 9602-1420-01.
2. Insert 1390 for position as illustrated in the Fig.21
3. Next insert 0245 and 1392. It must be connect to the Rivet along be pushing with 0244.

   Insert along with connecting for groove of 1234 to position screw (B) as illustrated in the Fig.22 then tighten 1246 it by the Univarsal compass.

   Check point after mounting : Check and confirm 0244 movement and their play for click smoothing of condition.

D. フィルター変換部組立要領

1. 1391を上向きに9602-1420-01で取付ける。
2. 1390をFig.21の位置へ挿入する。
3. 次に0245，1392を挿入する。

   そして鋲に合わせて0244を押えながら挿入する。

   Fig.22の位置決めビス（B）に1234の溝に合わせて挿入する。

   そして万能回ら器で1246を締め付ける。

   取付け後の点検：0244を回転させ，スムーズに所定の位置でスプリングが作動する事。

Fig.21

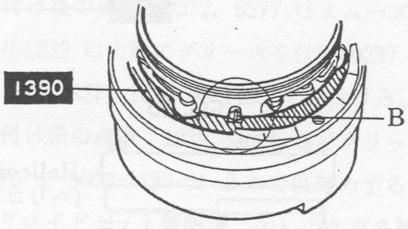


Fig.22

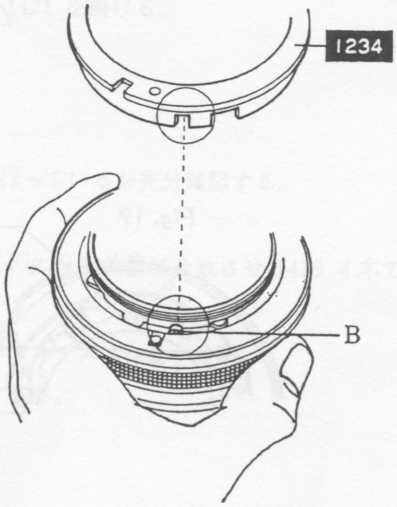
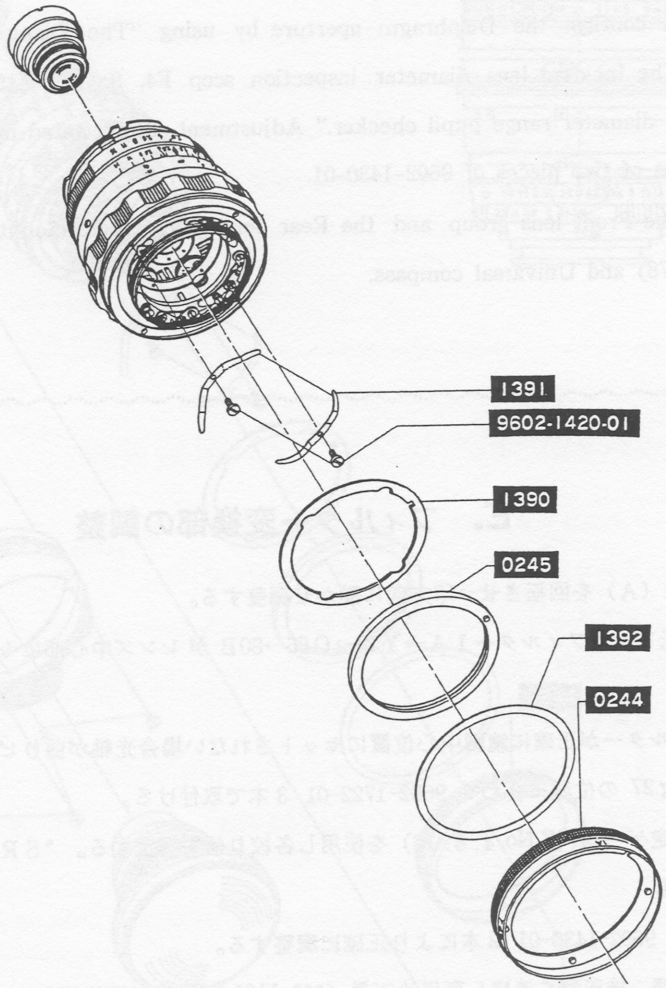


Fig. 23


1391
9602-1420-01
1390
0245
1392
0244

E. Adjusting of Filter Changing Place

1. (A) move round as illustrated in the Fig.24 then adjustment for attention to arrow position.
2. It must be adjust to setting position following the each Filter 1A→Y48→O56→80B for center line of lens by round of 0244.

   Caution : Check and confirm adjustment for position of the Filter.
3. 1235 connect with position of Fig.27 then tighten it by means of three pieces of 9602-1722-01.
4. Check and confirm the Diaphragm aperture by using "The Diaphragm aperture standard gauge" (The Incident lens diameter inspection scop F4, 8, 16) Attention see "Instruction manual for diameter range pupil checker." Adjustment as illustrated in the Fig.25 then tighten it by means of two pieces of 9602-1430-01.
5. Clean up the Front lens group and the Rear lens group then mount by using Special tool (608-1101-78) and Univarsal compass.

E. フィルター変換部の調整

1. Fig.24 の様（A）を回転させ→印方向に動かせ調整する。
2. 0244 を回転させ各フィルター1A→Y48→O56→80B がレンズ中心部にセットされる様正確に調整する。

   注意：フィルターが正確に鏡胴中心位置にセットされない場合光軸が曲りピントがずれる事になる。
3. 1235 を Fig.27 の位置に合わせ 9602-1722-01 3本で取付ける。
4. 入射瞳径測定ゲージ（F No. 4. 8. 16）を使用し各絞り値を測定する。〝SR用交換レンズ入射瞳径検査要領〟参照。

   Fig.25 の様 9602-1430-01 2本により正確に調整する。
5. レンズ前玉群，後玉群を清掃し専用治工具（608-1101-78）及び万能回ら器を使用し鏡胴に取付ける。

Fig.24

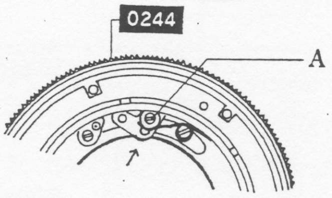


Fig.25

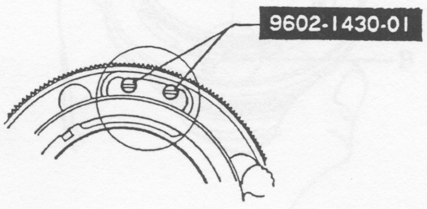


Fig. 26

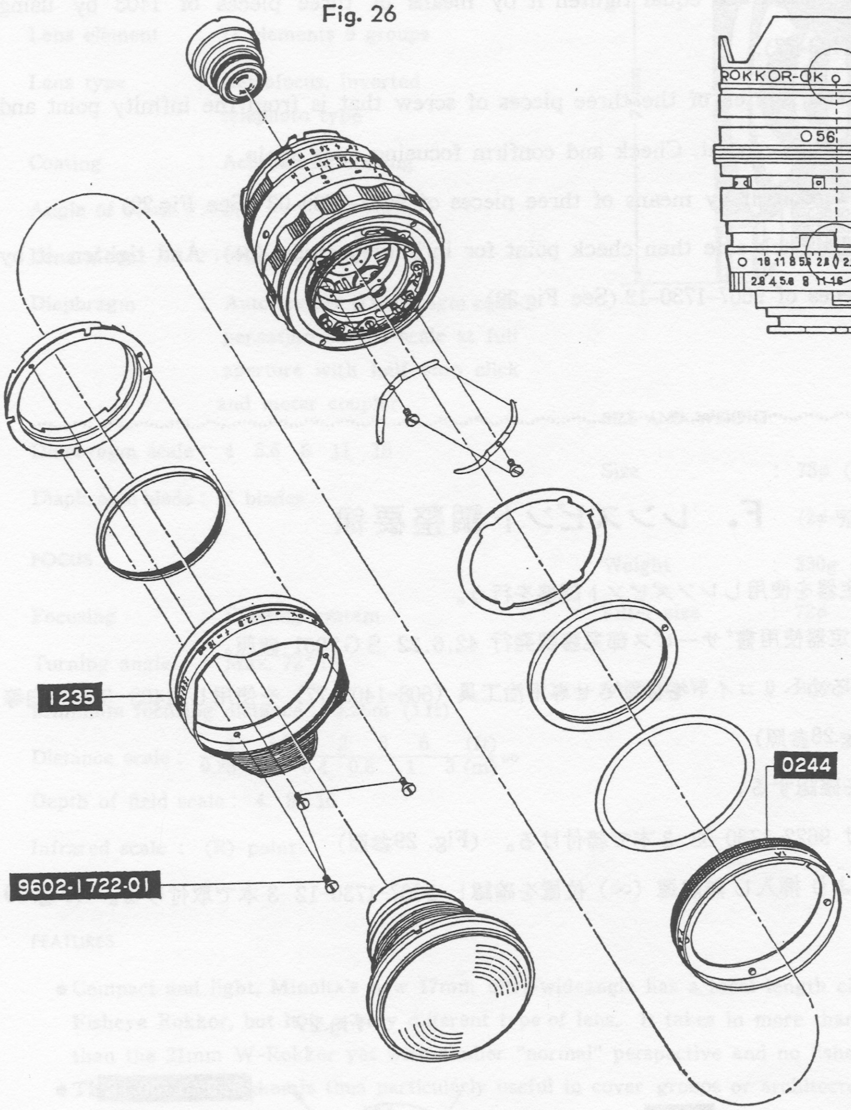
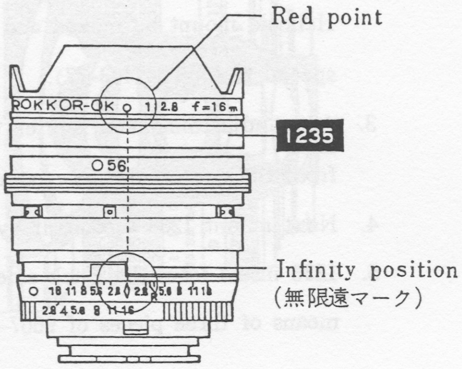

1235
9602-1722-01
0244

Fig. 27


Red point
ROKKOR-OK 1 2.8 f=16mm
1235
O56
18 11 8 5.6 2.8 2.8 5.6 8 11 18
R
2.8 4 5.6 8 11 16
Infinity position
(無限遠マーク)

F. Adjustment of Lens Focusing

1. Adjustment focusing by using "The flange Back checking tester" Attention see "Instruction manual for Flange back checking tester" It is use by Service department 6/22/1967.
2. It must be loosen for temporality tighten screw of 1403 as illustrated in the Fig.28 Then the Helicoid mount be moved and equal tighten it by means of three pieces of 1403 by using special tool (608-1403-77).
3. After adjustment and tighten of the three pieces of screw that is from the infinity point and from the nearest distance point. Check and confirm focusing once again.
4. Next mount 1238 tighten it by means of three pieces of 9622-1730-03 (See Fig.29)
5. 1236 insert from the Back side then check point for infinity position (∞). And tighten it by means of three pieces of 9607-1730-12.(See Fig.29)

F. レンズピント調整要領

1. フランジバック測定器を使用しレンズピント調整を行う。

   〝フランジバック測定器使用書〞サービス部業務課発行 42.6.22 SG7001 参照。
2. 仮締めの1403 をゆるめヘリコイドを移動させ専用治工具（608-1403-77）を使用し 1403 3本を均等に締め付ける。(Fig.28参照)
3. レンズピント位置を確認する。
4. 次に 1238 を取付け 9622-1730-03 3本で締付ける。（Fig. 29参照)
5. 1236 をレンズ後部より 挿入し 無限遠（∞）位置を確認し 9607-1730-12 3本で取付ける。（Fig. 29参照)

Fig.28

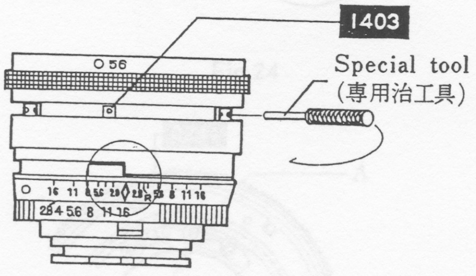
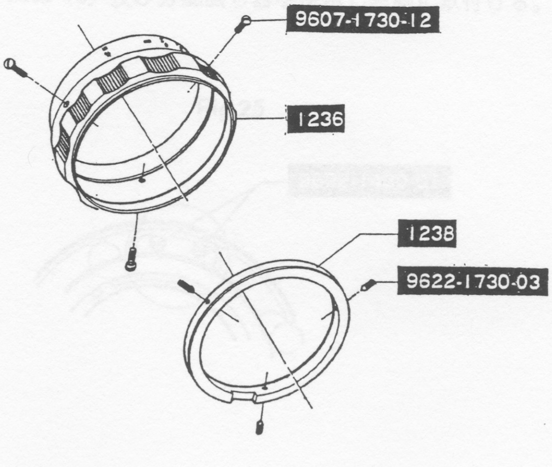
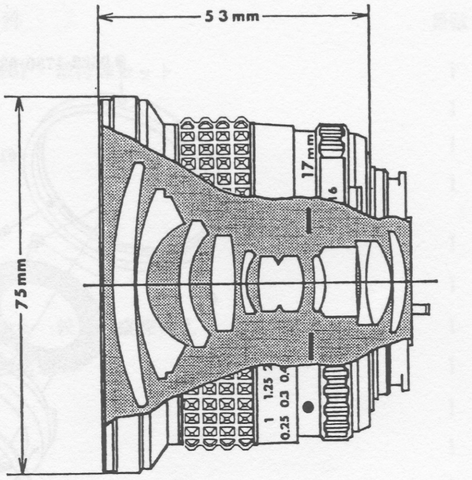


Fig.29



MC W. ROKKOR (611)
17mm F4



LENS

Lens element	: 11 elements 9 groups
Lens type	: Retrofocus, inverted telephoto type
Coating	: Achromatic coating
Angle of view	: 104°
Lens mount	: Minolta mount
Diaphragm	: Auto pre-set (Diaphragm compensation on the scale at full aperture with half stop click and meter coupler
Diaphragm scale	: 4 5.6 8 11 16
Diaphragm blade	: 6 blades

FOCUS

Focusing	: Floating system
Turning angle	: Max. 72° 15′
Minimum focusing distance	: 0.25m (1 ft)

Distance scale :	1	1.25	2	3	6	(ft)	∞
	0.25	0.3	0.4	0.6	1	3 (m)	

Depth of field scale : 4 8 16

Infrared scale : (R) point

SIZE AND WEIGHT

Size	: 75ϕ (Max. Diameter) × 53mm (2ϕ-15/16 × 2-1/16 in.)
Weight	: 330g (11-5/8 oz.)
Filter size	: 72ϕ

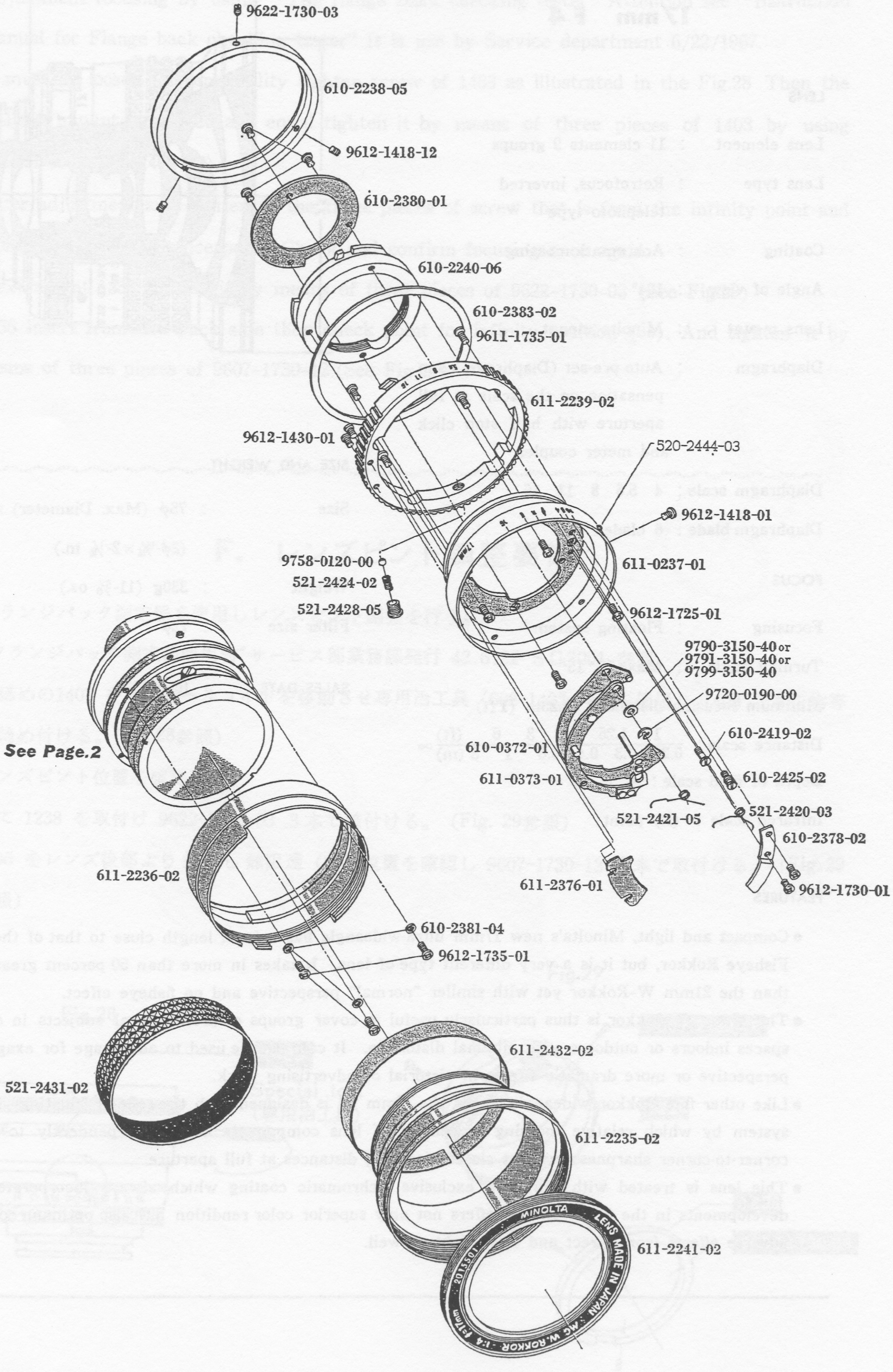
SALES DATE	: July 1975

FEATURES

- Compact and light, Minolta's new 17mm ultra-wideangle has a focal length close to that of the 16mm Fisheye Rokkor, but it is a very different type of lens. It takes in more than 50 percent greater area than the 21mm W-Rokkor yet with similer "normal" perspective and no fisheye effect.
- The 17mm W-Rokkor is thus particularly useful to cover groups or architectural subjects in confined spaces indoors or outdoors with minimal distortion. It can also be used to advantage for exaggerated perspective or more dramatic effects in pictorial or advertising work.
- Like other fine Rokkor wideangle lenses, the 17mm F4 is designed with the refined "floating" focusing system by which relative focusing movement of lens components varies independently to provide corner-to-corner sharpness even at closest focusing distances at full aperture.
- This lens is treated with Minolta's exclusive Achromatic coating which always incorporates latest developments in the field. It thus offers not only superior color rendition but also optimum control of adverse effects from direct and stray light as well.

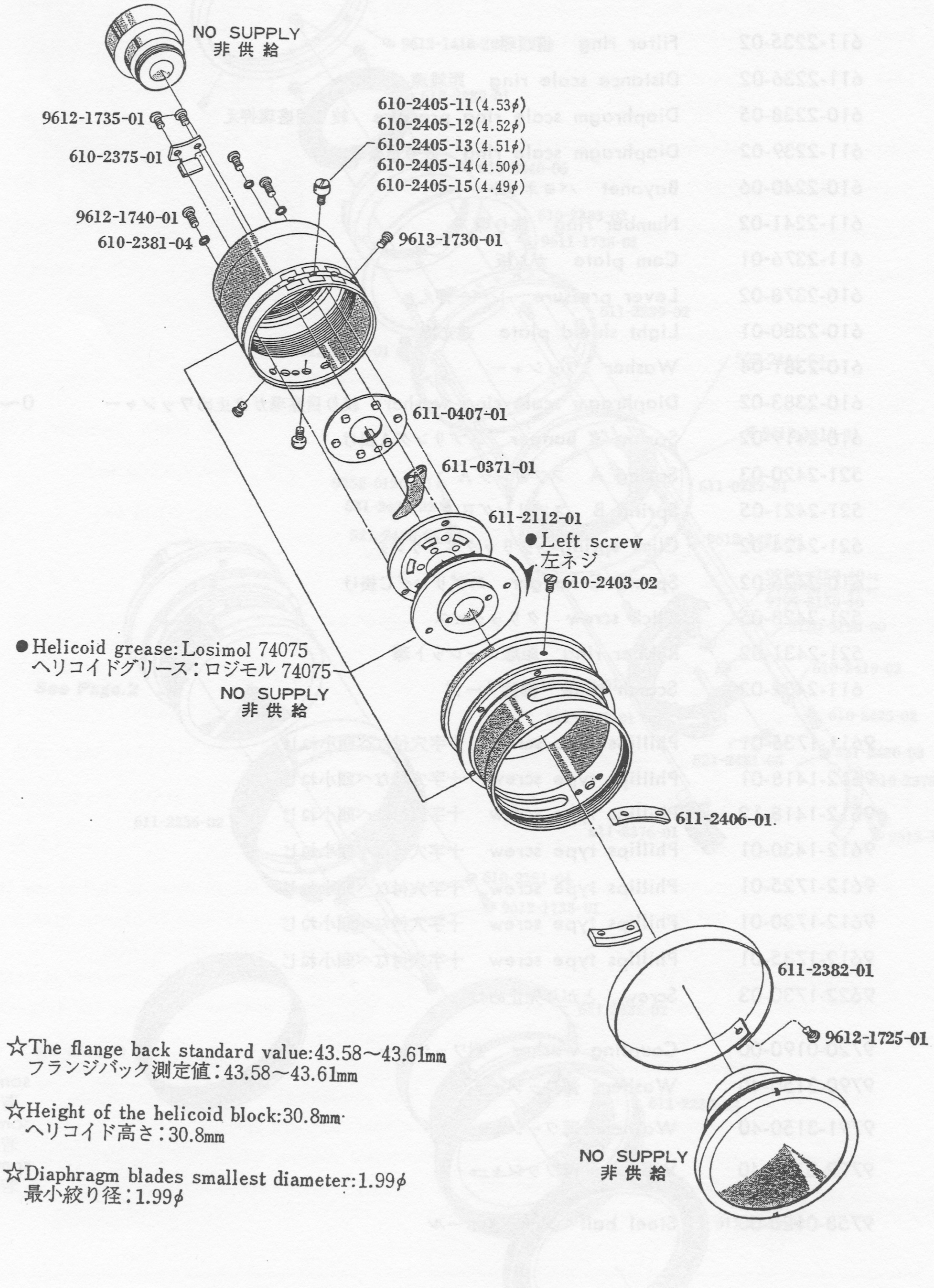
MC W. ROKKOR 17mm F4

CODE No. 611


9622-1730-03
610-2238-05
9612-1418-12
610-2380-01
610-2240-06
610-2383-02
9611-1735-01
611-2239-02
9612-1430-01
520-2444-03
9612-1418-01
611-0237-01
9758-0120-00
521-2424-02
521-2428-05
9612-1725-01
9790-3150-40 or
9791-3150-40 or
9799-3150-40
9720-0190-00
610-2419-02
610-0372-01
See Page.2
611-0373-01
610-2425-02
521-2420-03
521-2421-05
610-2378-02
611-2236-02
611-2376-01
9612-1730-01
610-2381-04
9612-1735-01
611-2432-02
521-2431-02
611-2235-02
611-2241-02
MINOLTA LENS MADE IN JAPAN MC W.ROKKOR 1:4 f=17mm 2011551

Part No. 部品番号	Part Name 部品名称	Unit 員数
611-0237-01	Helicoid mount base plate set 取付環セット	1
520-2444-03	Bayonet point バヨネット標点ポッチ	1
610-0372-01	Lever-A set レバーAセット	1
611-0373-01	Lever-B set レバーBセット	1
611-2235-02	Filter ring 鏡頭環	1
611-2236-02	Distance scale ring 距離環	1
610-2238-05	Diaphragm scale ring pressure 絞り目盛環押え	1
611-2239-02	Diaphragm scale ring 絞り目盛環	1
610-2240-06	Bayonet バヨネット	1
611-2241-02	Number ring 飾り環	1
611-2376-01	Cam plate カム板	1
610-2378-02	Lever pressure レバー押え	1
610-2380-01	Light shield plate 遮光板	1
610-2381-04	Washer ワッシャー	3
610-2383-02	Diaphragm scale ring washer 絞り目盛環ガタ止めワッシャー	0〜1
610-2419-02	Spring A hanger スプリングA掛け	1
521-2420-03	Spring A スプリングA	1
521-2421-05	Spring B スプリングB	1
521-2424-02	Click spring クリックスプリング	1
610-2425-02	Spring C hanger スプリングC掛け	1
521-2428-05	Click screw クリックビス	1
521-2431-02	Rubber ring 距離ローレット環	1
611-2432-02	Scotch tape 補強テープ	1
9611-1735-01	Phillips type screw 十字穴付なべ頭小ねじ	4
9612-1418-01	Phillips type screw 十字穴付なべ頭小ねじ	1
9612-1418-12	Phillips type screw 十字穴付なべ頭小ねじ	3
9612-1430-01	Phillips type screw 十字穴付なべ頭小ねじ	2
9612-1725-01	Phillips type screw 十字穴付なべ頭小ねじ	4
9612-1730-01	Phillips type screw 十字穴付なべ頭小ねじ	2
9612-1735-01	Phillips type screw 十字穴付なべ頭小ねじ	3
9622-1730-03	Screw とがり先止めねじ	3
9720-0190-00	Coupling washer 割ワッシャー	1
9790-3150-40	Washer 薄ワッシャー	some 若干
9791-3150-40	Washer 薄ワッシャー	some 若干
9799-3150-40	Washer 薄ワッシャー	some 若干
9758-0120-00	Steel ball スチールボール	1

MC W. ROKKOR 17mm F4
CODE No. 611


NO SUPPLY
非供給
9612-1735-01
610-2405-11(4.53ϕ)
610-2405-12(4.52ϕ)
610-2405-13(4.51ϕ)
610-2405-14(4.50ϕ)
610-2405-15(4.49ϕ)
610-2375-01
9612-1740-01
610-2381-04
9613-1730-01
611-0407-01
611-0371-01
611-2112-01
● Left screw
左ネジ
610-2403-02
● Helicoid grease: Losimol 74075
ヘリコイドグリース：ロジモル 74075
NO SUPPLY
非供給
611-2406-01
611-2382-01
9612-1725-01
NO SUPPLY
非供給

☆The flange back standard value:43.58～43.61mm
フランジバック測定値：43.58～43.61mm

☆Height of the helicoid block:30.8mm
ヘリコイド高さ：30.8mm

☆Diaphragm blades smallest diameter:1.99ϕ
最小絞り径：1.99ϕ

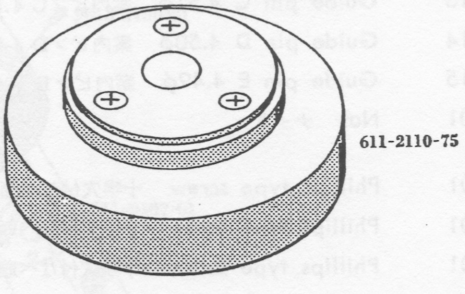
Part No. 部品番号	Part Name 部品名称	Unit 員数
611-0237-01	Helicoid mount base plate set 取付環セット	1
520-2444-03	Bayonet point バヨネット標点ポッチ	1
610-0372-01	Lever-A set レバーAセット	1
611-0373-01	Lever-B set レバーBセット	1
611-2235-02	Filter ring 鏡頭環	1
611-2236-02	Distance scale ring 距離環	1
610-2238-05	Diaphragm scale ring pressure 絞り目盛環押え	1
611-2239-02	Diaphragm scale ring 絞り目盛環	1
610-2240-06	Bayonet バヨネット	1
611-2241-02	Number ring 飾り環	1
611-2376-01	Cam plate カム板	1
610-2378-02	Lever pressure レバー押え	1
610-2380-01	Light shield plate 遮光板	1
610-2381-04	Washer ワッシャー	3
610-2383-02	Diaphragm scale ring washer 絞り目盛環ガタ止めワッシャー	0〜1
610-2419-02	Spring A hanger スプリングA掛け	1
521-2420-03	Spring A スプリングA	1
521-2421-05	Spring B スプリングB	1
521-2424-02	Click spring クリックスプリング	1
610-2425-02	Spring C hanger スプリングC掛け	1
521-2428-05	Click screw クリックビス	1
521-2431-02	Rubber ring 距離ローレット環	1
611-2432-02	Scotch tape 補強テープ	1
9611-1735-01	Phillips type screw 十字穴付なべ頭小ねじ	4
9612-1418-01	Phillips type screw 十字穴付なべ頭小ねじ	1
9612-1418-12	Phillips type screw 十字穴付なべ頭小ねじ	3
9612-1430-01	Phillips type screw 十字穴付なべ頭小ねじ	2
9612-1725-01	Phillips type screw 十字穴付なべ頭小ねじ	4
9612-1730-01	Phillips type screw 十字穴付なべ頭小ねじ	2
9612-1735-01	Phillips type screw 十字穴付なべ頭小ねじ	3
9622-1730-03	Screw とがり先止めねじ	3
9720-0190-00	Coupling washer 割ワッシャー	1
9790-3150-40	Washer 薄ワッシャー	some 若干
9791-3150-40	Washer 薄ワッシャー	some 若干
9799-3150-40	Washer 薄ワッシャー	some 若干
9758-0120-00	Steel ball スチールボール	1

SPECIAL TOOLS
(専用治工具)

Tool No. 611-2110-75

Use for sleeve fitting

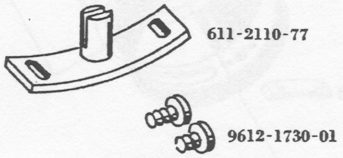
スリーブ嵌合用治具



Tool No. 611-2110-77

Use for float space retention

フロート間隔保持用治具


611-2110-77
9612-1730-01